

## Chapter nine (2)

Training (Reading the  
datasheet Excel using VB.Net )

Day					
Date					
Class					
Lecture					

### Objectives

**By the end of this chapter student will be able to :**

- 1 - The student writes know some definitions
- 2 - Student announce needed to open a channel of communication variables
- 3 - The student writes code to call Excel file into memory
- 4 - Students feel the importance of the program

#### Strategies

Co-operative learning - Discussion

#### Methods

Computer Program  
White Board  
Data show

#### Introduction

Can you create a channel contact between databases and programming



### Introduce



While writing programming code in Visual Studio.NET, will use some Basic terminology and concepts that you have already studied in the previous year , and also will identify some of the new terminology in this book are as follows :

#### Provider

A link between the database and v.b and each database has its own Data provider. The Connection and Command and DataAdapter

#### OleDb:

Is the Namespace that contains the group categories (Classes) and can be used to deal with databases created by Microsoft Office and is an acronym for (Object Linked & Embedded Database)

## **Introduce**

### **OleDb.OleDbConnection:**

The classification (Class) you can create a variable which let to open MyConnection communication channel with the worksheet that the data in the data file.

### **OleDbCommand:**

The classification (Class) you can create a variable which let MyCommand this variable by executing a query in which the data is drawn from the data file.

### **OleDb.OleDbDataAdapter:**

The classification (Class) you can create a variable to let da this variable as a data adapter (Data Adapter) from the database to the spreadsheet to the dt variable in memory.

### **DataTable:**

The classification (Class) you can create a variable from the variable dt dt and let it in the computer's memory is preserved by the table data (Data Table) that have been fetched from the data file

### **DataSet**

The classification (Class) you can create a variable to let ds and ds in computer memory variable represents the database tables (Data Table) that have been fetched from the data file into memory.

### **CommandText**

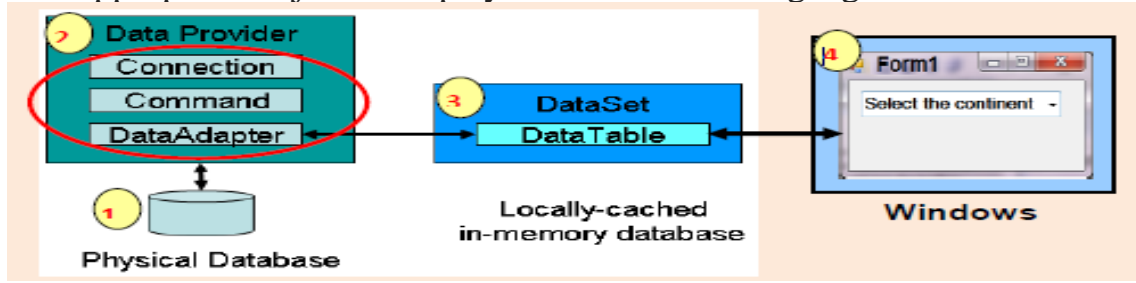
A property of the variable MyCommand which contains an expression representing a SQL script

### **MyConnection.ConnectionString**

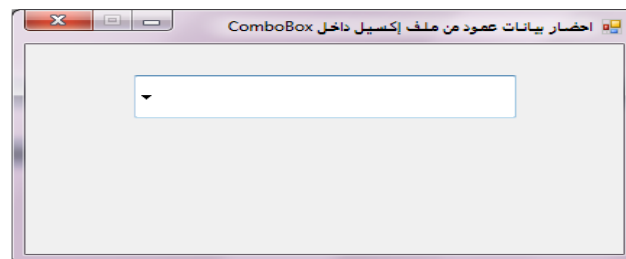
A property containing the information required to open a communication channel such as: Provider and Data Source and FilePath

## Introduce

The following figure shows the stages of the call data from a database stored on a storage medium and turn it into a table in memory and then displayed in the appropriate object to display the form in the language of VB net.



Use the languages VB.NET in the create a new project, the form window contains on one controller (ComboBox), and then write the code required to retrieve data (Database) Excel on behalf of AtlasData.xls) let the column ' the continent ' (inside the ComboBox on the window form



- 1 - create a new project.
- 2 - Of the Toolbox (Toolbox) is a tool to control within the form window ComboBox1.
3. go to window scripting (Code Window) and then write code as in the following figure: a declaration of objects or variables are created from the group-categories (Classes) for use when working with database file (ExcelData.xls)

```
Public Class Form1
    Private Sub Form1_Load (ByVal sender As System.Object, ByVal e As System.EventArgs) Handles MyBase.Load
        Dim MyConnection As New OleDb.OleDbConnection
        Dim MyCommand As New OleDb.OleDbCommand
        Dim da As New OleDb.OleDbDataAdapter
        Dim dt As New DataTable
    End Sub
End Class
```

A red box highlights the variable declarations: `Dim MyConnection As New OleDb.OleDbConnection`, `Dim MyCommand As New OleDb.OleDbCommand`, and `Dim da As New OleDb.OleDbDataAdapter`. A red arrow points from a box labeled **Provider** to the `Dim da` line.

## Introduce

Then declare two variables **filePath** and **sql** (will be placed inside the database file name (ExcelData.xls) and inter (Select))

```
Public Class Form1
    Private Sub Form1_Load (ByVal sender As System.Object, ByVal e As System.EventArgs) Handles MyBase.Load
        Dim MyConnection As New OleDb.OleDbConnection
        Dim MyCommand As New OleDb.OleDbCommand
        Dim da As New OleDb.OleDbDataAdapter
        Dim dt As New DataTable

        Dim filePath, sql As String
    End Sub
End Class
```

Assignment the values for the variables:-

- 1 - Allocate a value to variable-**filePath** is the database file name inside the central storage (ExcelData.xls).
- 2 - Allocate a value to variable-**sql** to be call the names of the continents within the worksheet Sheet1 in the database file (ExcelData.xls).

```
Public Class Form1
    Private Sub Form1_Load (ByVal sender As System.Object, ByVal e As System.EventArgs) Handles MyBase.Load
        Dim MyConnection As New OleDb.OleDbConnection
        Dim MyCommand As New OleDb.OleDbCommand
        Dim da As New OleDb.OleDbDataAdapter
        Dim dt As New DataTable

        Dim filePath, sql As String

        filePath = "ExcelData.xls"
        sql = "Select القارة from [Sheet1$]"
    End Sub
End Class
```

Rating

True or false

- 1 - Opens a channel of communication between the program being created in v.b.net and Excel file using ADO.NET Tools

( )

## Chapter nine (3) Follow Training

Training (Reading the  
datasheet Excel using VB.Net )

Day					
Date					
Class					
Lecture					

### Objectives

**By the end of this chapter student will be able to :**

- 1 - The student writes code to open a channel of communication
- 2 - Student assignments the values for variables
- 3 - The student writes code to call Excel file into memory
- 4 - Students feel the importance of the program

#### Strategies

Co-operative learning - Discussion

#### Methods

Computer Program  
White Board  
Data show

#### Introduction

Can you create a channel contact between databases and programming

### Introduce

Assignment the value used for the communication channel for the property-  
(ConnectionString).

Open communication channel using the method -(Open).

```
Private Sub Form1_Load(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles MyBase.Load
    Dim MyConnection As New OleDb.OleDbConnection
    Dim MyCommand As New OleDb.OleDbCommand
    Dim da As New OleDb.OleDbDataAdapter
    Dim dt As New DataTable

    Dim filePath, sql As String

    filePath = "ExcelData.xls"
    sql = "Select الفقرة from [Sheet1$]"

    MyConnection.ConnectionString = "Provider=Microsoft.Jet.OLEDB.4.0; data source=" & filePath & ";Extended Properties=Excel 8.0"
    MyConnection.Open()
End Sub
```

## Introduce

Assignment value used to order for the communication channel for the property-(Connection).

Assignment the value used for inter-Select by property

```
Private Sub Form1_Load(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles MyBase.Load
    Dim MyConnection As New OleDb.OleDbConnection
    Dim MyCommand As New OleDb.OleDbCommand
    Dim da As New OleDb.OleDbDataAdapter
    Dim dt As New DataTable

    Dim filePath, sql As String

    filePath = "ExcelData.xls"
    sql = "Select * from [Sheet1$]"

    MyConnection.ConnectionString = "Provider=Microsoft.Jet.OLEDB.4.0; data source=" & filePath & ";Extended Properties=Excel 8.0"
    MyConnection.Open()

    MyCommand.Connection = MyConnection
    MyCommand.CommandText = sql
End Sub
```

Customize the value used for the variable-da property (SelectCommand).  
Using variable-da for the property (Fill) fill in the data table (dt).

```
Private Sub Form1_Load(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles MyBase.Load
    Dim MyConnection As New OleDb.OleDbConnection
    Dim MyCommand As New OleDb.OleDbCommand
    Dim da As New OleDb.OleDbDataAdapter
    Dim dt As New DataTable

    Dim filePath, sql As String

    filePath = "ExcelData.xls"
    sql = "Select * from [Sheet1$]"

    MyConnection.ConnectionString = "Provider=Microsoft.Jet.OLEDB.4.0; data source=" & filePath & ";Extended Properties=Excel 8.0"
    MyConnection.Open()

    MyCommand.Connection = MyConnection
    MyCommand.CommandText = sql

    da.SelectCommand = MyCommand
    da.Fill(dt)
End Sub
```

Customize the data source used to populate the tool-(ComboBox) data. Fill tool-(ComboBox) from the spreadsheet to the first column.

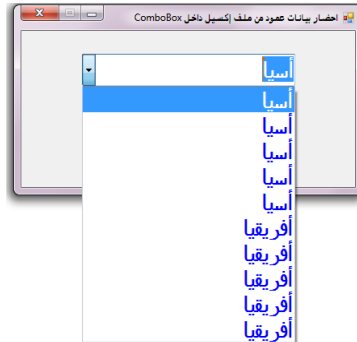
```
Private Sub Form1_Load(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles MyBase.Load
    Dim MyConnection As New OleDb.OleDbConnection
    Dim MyCommand As New OleDb.OleDbCommand
    Dim da As New OleDb.OleDbDataAdapter
    Dim dt As New DataTable
    Dim filePath, sql As String

    filePath = "ExcelData.xls"
    sql = "Select * from [Sheet1$]"
    MyConnection.ConnectionString = "Provider=Microsoft.Jet.OLEDB.4.0; data source=" & filePath & ";Extended Properties=Excel 8.0"
    MyConnection.Open()
    MyCommand.Connection = MyConnection
    MyCommand.CommandText = sql
    da.SelectCommand = MyCommand
    da.Fill(dt)

    Me.ComboBox1.DataSource = dt
    Me.ComboBox1.DisplayMember = dt.Columns(0).ToString
End Sub
```

## Introduce

Just write the code and work-Run and click on the tool (ComboBox) will show all the continents in the first column of the table data, as in the following figure.

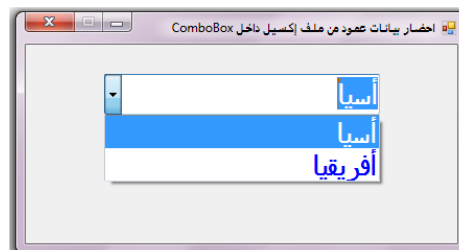


The code can be modified by replacing the line:-sql ' Select continent from [Sheet1 \$] '

with the line:

sql = **Select distinct continent from [Sheet1 \$] '**

after-Run and click on the tool (ComboBox) will show all the continents in the first column of the data table without repeating it in the following form.



True or false

2- uses the variable type OleDbConnection in close communication channel opened ( )

Rating

## Chapter nine (4) Creating private function to read the data sheet excel

Day					
Date					
Class					
Lecture					

### Objectives

**By the end of this chapter student will be able to :**

- 1 - The student writes code to open a channel of communication
- 2 - Student assignments the values for variables
- 3 - The student writes code to call Excel file into memory
- 4 - Students feel the importance of the program

### Strategies

Co-operative learning - Discussion

### Methods

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### Introduction

Can you create a channel contact between databases and programming

## Introduce

After setting up the interface of the program and adjust the characteristics and properties of controls Controls on the stage of writing the appropriate code to the interface of the program is to respond to the needs of the user the Arab Atlas program. As program data in Excel that contains the following data

E	D	C	B	A	
من مصادر المياه	من أهم الموانئ	العاصمة	الدولة	القارة	1
وادي فجر - أبو جيدة	جدة	الرياض	السعودية	آسيا	2
وادي الباطن	الأحمدي	الكويت	الكويت	آسيا	3
وادي الخاراد	عدن	صنعاء	اليمن	آسيا	4
تحليه الخليج العربي	الدوحة	الدوحة	قطر	آسيا	5
وادي العين - مسلم	مسقط	مسقط	عمان	آسيا	6
نهر النيل	الأسكندرية	القاهرة	مصر	أفريقيا	7
وادي زمزم - بي الكبير	بنغازي	طرابلس	ليبيا	أفريقيا	8
وادي ملين - مجرادة	صفاقس	تونس	تونس	أفريقيا	9
وادي تمانراست	وهران	الجزائر	الجزائر	أفريقيا	10
نهر الربيع - بوقراق	الدار البيضاء	الرباط	المغرب	أفريقيا	11



## Introduce

If we need to open a channel of communication between the Arab Atlas program and Excel file is done

Classes using the ratings fall under the name of ADO.NET managed to read The data file is stored and displayed on the front of the program and handled by following

The following steps:

- open a window for a window model code Form1, and then announce the function GetDatafromExcelSheet as shown following CODE

```
Function GetDatafromExcelSheet(FilePath As String, sql As String) As DataTable  
  
End Function
```

This function has 2 modes are **FilePath** where a path Excel file and **sql** Where a sentence from which will inquire about the data from the Excel file and returns the value of the function maven type DataTable spreadsheet is a computer in his memory Data that I brought from the Excel file.

### **Declare about these variables**

```
Function GetDatafromExcelSheet(FilePath As String, sql As String) As DataTable  
    Dim MyConnection As New OleDb.OleDbConnection  
    Dim MyCommand As New OleDb.OleDbCommand  
    Dim da As New OleDb.OleDbDataAdapter  
    Dim dt As New DataTable  
  
End Function
```

**Variable MyConnection** will be open channel of communication with the working paper Data in the Excel file.

**Variable MyCommand** will query the implementation of which is obtained data from Excel file.

**Variable da** will work ships as data from Excel spreadsheet with Variable dt.

**Variable dt** for a friendly table saves its data, which was brought from the Excel file.

## Introduce

Use variables as shown following CODE

```
Function GetDatafromExcelSheet(FilePath As String, sql As String) As DataTable
    Dim MyConnection As New OleDb.OleDbConnection
    Dim MyCommand As New OleDb.OleDbCommand
    Dim da As New OleDb.OleDbDataAdapter
    Dim dt As New DataTable

    MyConnection.ConnectionString = "provider=Microsoft.Jet.OLEDB.4.0; " & _
        "data source=" & FilePath & "; " & _
        "Extended Properties=Excel 8.0"

    MyCommand.Connection = MyConnection
    MyCommand.CommandText = sql

    da.SelectCommand = MyCommand
    da.Fill(dt)

    Return dt
End Function
```

Converter of the statements straightens da through the use of the matter MyCommand who with him altogether the in query sql about there quested statements from folder excel who channel of the communication takes MyConnection road to the statements trick to dt. Then the familiarity in returning straightens dt in her the statements from folder excel

True or false

Feedback from the function value GetDatafromExcelSheet (FilePath As String, sql As String) As DataTable Type of String ( )



Rating

## Chapter nine (5)

Writing the code required to fill tool (combo box) of the continents

Day					
Date					
Class					
Lecture					

## Objectives

**By the end of this chapter student will be able to :**

- 1 - The student writes code to open a channel of communication
- 2 - Student assignments the values for variables
- 3 - The student writes code to call Excel file into memory
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### Strategies

Co-operative learning - Discussion

### Methods

Computer Program  
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### Introduction

Can you create a channel contact between databases and programming

## Introduce

Use indicative GetDatafromExcelSheet in filling the upright continents in her names

- in window of code choice builds in (Form1Events) from list Class Name Choice of the event Shown from list Method Name as shown in the form

⚡ (Form1 Events)

⚡ Shown

Choice of the event was complete Shown because happens only one time at penetrative appearances for the first time.

- then code write coming:

```
Private Sub Form1_Shown(sender As Object, e As EventArgs) Handles Me.Shown
    Dim dt As New DataTable
    dt = GetDatafromExcelSheet("c:\Atlas\database\atlas.xls", _
        "select distinct القارة from [data$]")
    Me.cmbbxContinent.DataSource = dt
    Me.cmbbxContinent.DisplayMember = dt.Columns(0).ToString
    Me.cmbbxContinent.ValueMember = dt.Columns(0).ToString
    Me.cmbbxContinent.SelectedIndex = 1
End Sub
```

## Introduce

When running the list of continents by the names of the continents, as shown in the following figure:

الأطلس العربي الإلكتروني

خريطة الدولة

الدولة

القارة

أفريقيا

علم الدولة

العاصمة

Label6

أهم المواني

Label7

من مصادر المياه

Label8

إيقاف تشغيل السلام الوطني

Rating

```
Function GetDatafromExcelSheet(FilePath As String, sql As String) As DataTable
    Dim MyConnection As New OleDb.OleDbConnection
    Dim MyCommand As New OleDb.OleDbCommand
    Dim da As New OleDb.OleDbDataAdapter
    Dim dt As New DataTable

    MyConnection.ConnectionString = "provider=Microsoft.Jet.OLEDB.4.0; " & _
        "data source=" & FilePath & "; " & _
        "Extended Properties=Excel 8.0"

    MyCommand.Connection = MyConnection
    MyCommand.CommandText = sql

    da.SelectCommand = MyCommand
    da.Fill(dt)

    Return dt
End Function
```

**Read the following code well, and then answer the following:**

1 - Announcement function name.....

2 This function has two arguments are..... And-sql so..... The path of Excel and. .... A sentence which will queries data from file excel.

3 This function will return a value of type..... A data table in the computer's memory-data imported from Excel.

4 - I've been following variables Declarationvariable.....

- Variable..... To open a communication channel with the worksheet data is Excel.
- Variable..... That executes a query to get the data from the Excel file.
- Variable..... Will act as an adapter for data from Excel.
- -Variable..... Has a table with data that has been saved from Excel. –

5 - data adapter command da..... That has the sql query required data from Excel that use the connection MyConnection Canal route to transfer data to the dt.